

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Patent Application of:  
Jonathan E. Greene

Application No.: 10/643,164

Confirmation No.: 3585

Filed: August 18, 2003

Art Unit: 2193

For: METHODS AND APPARATUS FOR FAST  
FOURIER TRANSFORMS

Examiner: C. C. Do

Certificate of Submission (37 C.F.R. 1.8(a))

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MS Appeal Brief – Patents, Commissioner for Patents, P.O. Box 1450, Alexandria,  
VA 22313-1450 on:

November 13, 2007

/David J. Powsner/

Date of Deposit

By: David J. Powsner, Reg. No. 31,868

**REPLY BRIEF PURSUANT TO 37 C.F.R. §41.41**

MS Appeal Brief - Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

This is in reply to the arguments raised in the Examiner's Answer mailed September 11, 2007. Appellant respectfully requests that the arguments presented below be considered in connection with this appeal.

**RESPONSE TO THE EXAMINER'S REMARKS**

Applicants have appealed the Examiner's rejection of claims 60 and 61 pursuant to 35 U.S.C. §101. Per Applicant's Appeal Brief, Applicants assert that independent claim 60 provides a useful, concrete, and tangible result, namely fast Fourier transform ordered outputs. Not only does claim 60 compare favorably to the claims at issue in *Alappat* and *State Street Bank* as discussed in the Appeal Brief, but claim 60 also comports with the guidelines specified in the MPEP. Specifically, the result of claim 60 is concrete as it is predictable and repeatable (MPEP 2106(IV)(C)(2)((2))(c)) as each time the claimed invention is used, it will produce ordered transform outputs. The result is tangible as it is a real world result (MPEP 2106(IV)(C)(2)((2))(b)) in the form of outputs that are ordered. The result is also useful in that the ordered outputs are specific, substantial, and credible (MPEP 2106(IV)(C)(2)((2))(a)).

In addition, Applicants assert that claim 60 recites physical structure. According to the MPEP, a claim defines statutory subject matter if it identifies the physical structure of a machine in terms of hardware or hardware and a software. Thus, Applicants argued that claim 60 is statutory as it defines a computer system that includes specific hardware structures, namely, vector processors.

Both of these arguments fulfill the requirements of §101. The Examiner's answer fails to undercut the arguments set forth in the Appeal Brief.

Regarding Applicants' argument that claim 60 recites physical structure, the Examiner asserts that

claim 60 does not provide a physical structure as alleged by the applicant. The claim only discloses system having vector processors configured to perform a set of calculation means by software sub-routines. The claim does not disclose any specific or particular hardware for performing Fast Fourier Transform, but rather merely general vector processor. Further, vector processor is a well-known and widely used hardware general processor for performing multiply data simultaneously as defined by Wikipedia

Applicants respectfully disagree. At the outset, a vector processor *is* hardware, and nowhere is it required that a more specific type of hardware would be required to be recited in a claim to comport

with the requirements of §101. Moreover, the fact that a type of hardware is well-known is irrelevant to whether or not claim 60 provides a physical structure in the form of hardware.

Regarding Applicants' argument that claim 60 provides a useful, concrete, and tangible result, the Examiner agrees with Applicants that claim 60 provides useful and concrete subject matter, but maintains that claim 60 lacks a tangible result (see Examiner's Answer, page 5-6). Applicants respectfully disagree. As discussed in the Appeal Brief, the results are tangible as they are real world results (MPEP 2106(IV)(C)(2)((2)(b))) in the form of ordered outputs that can be used without any additional post-processing, as described in the Applicant's specification on page 5.

In summary, Applicants arguments that claim 60 provides a useful, concrete, and tangible result and recites physical structure remain, and show that claim 60 is statutory subject matter. The Examiner's attempt to refute them continues to fail to establish that claims 60 and 61 are not statutory subject matter under §101.

## **CONCLUSION**

For the reasons detailed above, the Applicant-Appellant respectfully request that the Board hold that claims 60 and 61 recite statutory under 35 U.S.C. 101 and reverse the Examiner's rejections.

Dated: November 13, 2007

Respectfully submitted,

By           /David J. Powsner/            
David J. Powsner  
Registration No.: 31,868  
NUTTER MCLENNEN & FISH LLP  
World Trade Center West  
155 Seaport Boulevard  
Boston, Massachusetts 02210-2604  
(617) 439-2717  
(617) 310-9717 (Fax)  
Attorney for Applicant